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University of Maine

Maine Agricultural Experiment Station

BULLETIN No. 47. DECEMBER, 1898.

WHEAT OFFALS SOLD IN MAINE IN 1898.

This Bulletin contains the analyses of samples collected by the Station of wheat brans, middlings, mixed feeds, and other refuse milling products from wheat offered in the State in 1898.

Requests for the Bulletins should be addressed to the

AGRICULTURAL EXPERIMENT STATION,

Orono, Maine.

MAINE

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ANALYSES OF BRANS, ETC., COLLECTED IN 1898.

Station number.	Manufacturer or Dealer.	Sampled at	Date of sampling.	Name of Feed.	Protein—per cent.
			1898		
8207	Albion Milling Co..	Bucksport	Jan ..	Winter Wheat Bran	13 9
8246	Albion Milling Co..	West Minot	Jan ..	Winter Wheat Bran	13.6
8446	Albion Milling Co..	Farmington	Oct ..	Winter Wheat Bran	13.9
8258	Stott's Flour Mills.	Richmond.....	Jan ..	Stott's Pure Winter Wheat Bran	14.6
8203	Stott's Flour Mills.	Dexter	Jan ..	Stott's Pure Winter Wheat Bran	15.1
8222	Valley City Milling Company....	Guilford	Jan ..	Winter Wheat Bran	15.7
8248	J. L. Briggs	Poland	Jan ..	Pure Winter Wheat Bran	14.3
8405	Wm. A. Coombs ...	Dexter	Sept.	Winter Wheat Bran	15.2
8444	C. P. Chapman.....	Dover	Oct..	Winter Wheat Bran	14.9
8253	C. A. Whitehouse..	North Leeds	Feb..	Spring Wheat Bran	16.2
8224	Albion Milling Co..	Foxcroft....	Jan ..	Bran.....	15.2
8260	Acme Milling Co ..	Bath	Jan ..	Acme Bran	15.3
8198	Pillsbury's Mill....	Belfast	Jan ..	Pillsbury's Bran ...	15.5
8233	Pillsbury's Mill....	Norway.....	Jan ..	Pillsbury's Bran ...	15.6
8263	Pillsbury's Mill....	Bowdoinham .. .	Jan ..	Pillsbury's Bran ...	15.6
8264	Pillsbury's Mill ...	Houlton	Jan ..	Pillsbury's Bran ...	15.9
8411	Pillsbury's Mill....	Bangor	Sept.	Pillsbury's Bran ...	15.3
8421	Pillsbury's Mill....	Damarisc'ta M'ls	Oct..	Pillsbury's Bran ...	15.3
8454	Pillsbury's Mill....	Eastport.....	Oct..	Pillsbury's Wheat Bran	15.1
8205	F. W. Stock	Newport.	Jan ..	Bran.....	14.9
8230	F. W. Stock	Hiram	Jan ..	Bran....	15.2
8239	F. W. Stock	Canton	Jan ..	Bran.....	14.8
8427	F. W. Stock	Wiscasset	Oct..	Bran.....	15.4
8439	F. W. Stock	Canton	Oct..	Bran..... ...	15.0
8201	North Dakota Milling Association..	Orrington	Jan ..	Bran.....	16.2
8208	Washburn Crosby Company.....	Bucksport.....	Jan ..	Coarse Bran	15.6
8220	Washburn Crosby Company...	Damariscotta ...	Feb..	Coarse Bran	15.7
8213	D. B. Gardner & Co.	West Pemb.oke..	Jan ..	Wheat Bran	15.5
8216	L. H. Phelan	Calais.....	Jan ..	Wheat Bran	15.5
8227	E. A. Ireland..	Dover	Jan ..	Bran..	17.4
8231	Wm. Listman Milling Company	Cornish.....	Jan ..	Hiawatha Bran.....	16.5
8237	Wm. Listman Milling Company	Norway Lake....	Jan ..	Hiawatha Bran.....	15.1
8244	Voigt Milling Co ..	Mechanic Falls ..	Jan ..	Choice Bran	16.1
8416	Voigt Milling Co ..	Pittsfield	Sept.	Choice Bran	16.6
8441	Voigt Milling Co ..	West Paris.....	Oct..	Choice Bran	15.7
8265	Voigt Milling Co ..	Presque Isle	Jan ..	Wheat Bran	13.9
8442	Voigt Milling Co ..	Milo	Oct..	Bran.	15.0
8250	Anchor Milling Co	Hollis Center	Jan ..	Bran.....	16.4
8249	E. S. Woodworth & Company	South Paris	Jan ..	Snow's Flaky Bran.	16.3

ANALYSES OF BRANS, ETC.—CONTINUED.

Station number.	Manufacturer or Dealer.	Sampled at	Date of sampling.	Name of Feed.	Protein—per cent.
8414	E. S. Woodworth & Company	Bucksport	Sept.	Snow's Flaky Bran.	15.6
8433	E. S. Woodworth & Company	Sebago Lake	Oct..	Snow's Flaky Bran.	16.1
8457	E. S. Woodworth & Company	Island Falls	Oct..	Snow's Flaky Bran.	15.6
8406	Stott's Flour Mills.	Corinna	Sept.	Stott's Bran	14.7
8410	Stott's Flour Mills.	Orrington	Oct..	Stott's Bran	15.1
8425	Vannah & Chute	Waldoboro	Oct..	Wheat Bran	15.1
8431	E. D. Walker	East Brownfield.	Oct..	Kansas Wheat Bran	15.2
8432	Shelby & Senior	East Brownfield.	Oct..	Shelby Mill Bran	15.9
8435	Milford Roll Mills.	Buxton Center	Oct..	Pure Bran	14.0
8436	So. Paris Grain Co.	South Paris	Oct..	C. Bran	15.8
8448	F. L. Butler	Farmington	Oct..	Bran	17.9
8450	No. West. Consolidated Milling Co.	Eastport	Oct..	Wheat Bran	14.3
8266	A. Cox	Presque Isle.	Jan..	Buckwheat Bran	14.7
8267	H. A. Edwards	Caribou	Jan..	Buckwheat Bran (Roller Process)	16.1
8193	Blish's Milling Co.	Winterport	Jan..	Blish's Mixed Feed.	16.1
8197	Blish's Milling Co.	Belfast	Jan..	Blish's Mixed Feed.	15.5
8415	Blish's Milling Co.	Pittsfield	Sept.	Blish's Mixed Feed.	16.7
8219	Bliss Milling Co	Damariscotta	Feb.	Bliss Mixed Feed	15.8
8254	Bliss Milling Co	North Leeds	Feb.	Bliss Winter Wheat Mixed Feed	15.8
8194	J. Jenks & Co.	Hampden	Jan..	Winter Wheat Mixed Feed	14.9
8261	J. Jenks & Co.	Bath	Jan..	Winter Wheat Mixed Feed	14.5
8434	J. Jenks & Co.	Hiram	Oct..	Mixed Feed	14.3
8195	Doten Grain Co.	Hampden	Jan.	Eagle Mixed Feed..	17.4
8196	Anchor Milling Co.	Bangor	Jan..	Anchor Mixed Feed	17.1
8202	F. W. Stock	Orrington	Jan..	M. F. Mixed Feed..	15.1
8229	F. W. Stock	Hiram	Jan..	M. F. Mixed Feed..	14.7
8429	F. W. Stock	Wiscasset	Oct..	Mixed Feed	15.3
8255	Stott's Flour Mills.	Livermore Falls.	Feb..	Stott's Mixed Feed.	15.1
8206	Lake Superior Mills	Newport	Jan..	Superior Mixed Feed..	16.6
8209	Washburn Crosby Company	Bucksport	Jan..	Superior Mixed Feed	16.7
8238	Washburn Crosby Company	Canton	Jan..	Superior Mixed Feed	16.7
8066	Eldred Mill Co.	Dexter	Jan..	Pure Mill Feed	14.6
8210	Paris Flouring Co.	Corinna	Jan..	Royal Mixed Feed.	17.5
8236	Wm. Listman Milling Company	Norway Lake	Jan..	Hiawatha Mixed Feed	16.6
8241	Voigt Milling Co.	Bethel	Jan..	Mixed Feed	15.8
8251	Minkota Milling Co	Kennebunk	Jan..	Minkota Mixed Feed	16.8

ANALYSES OF BRANS, ETC.—CONTINUED.

Station number.	Manufacturer or Dealer.	Sampled at	Date of sampling.	Name of Feed.	Protein—per cent.
8199	Acme Milling Co ..	Belfast	Jan ..	Acme Feed	16.1
8252	Acme Milling Co ..	Lewiston	Feb .	Acme Feed	16.6
8262	Acme Milling Co ..	Bowdoinham	Jan ..	Acme Feed	15.6
8426	Acme Milling Co ..	Rockland	Oct ..	Acme Feed	16.8
8449	Acme Milling Co ..	Farmington	Oct ..	Acme Feed	16.8
8200	R. P. Moore Milling Co	Belfast	Jan ..	King Feed	16.1
8217	R. P. Moore Milling Company ...	Nobleboro	Jan ..	King Feed	16.6
8420	R. P. Moore Milling Company	Damarisc'ta M'ls	Oct ..	King Mixed Feed ..	16.2
8409	R. P. Moore Milling Company	Newport...	Oct ..	Mixed Feed.....	16.4
8404	Wm. A. Coombs ...	Dexter.....	Sept.	Winter Wheat Mixed Feed.....	15.0
8407	Chapin & Co	Bangor	Sept.	Sterling Mixed Feed.....	16.6
8445	Chapin & Co	Guilford	Oct ..	Sterling Mixed Feed.	16.2
8412	Miles & Son.... ...	Bangor	Sept.	Mixed Feed.....	14.9
8413	Miles & Son.... ...	Bucksport.....	Sept.	Mixed Feed...	14.9
8276	Saginaw Milling Co	Orrington	Oct ..	Mixed Feed..... ...	14.9
8417	Kent & Senior Co..	Pittsfield	Sept.	Shelby Mills Mixed Feed.....	14.8
8418	Amer. Cereal Co...	Bucksport.....	Sept.	Buckeye Wheat Feed.....	16.0
8452	Amer. Cereal Co...	Eastport.....	Oct ..	Buckeye Wheat Feed.....	15.9
8419	Rex Mill Co.	Belfast	Sept.	Mixed Feed.....	16.0
8430	E. L. Dillingham ..	Thomaston	Oct ..	Gold Dust Mixed Feed..... .	15.9
8438	So. Paris Grain Co.	South Paris	Oct ..	Mixed Feed.....	16.4
8447	P. M. Company....	Farmington	Oct ..	Michigan Mixed Feed.....	16.1
8211	D. B. Gardner Co..	West Pembroke..	Jan ..	White Middlings...	19.0
8235	J. Jenks & Co.....	Norway.	Jan ..	Fine White Middlings	12.4
8408	J. Jenks & Co.....	Hampden	Oct ..	Fine White Middlings	13.5
8423	J. Jenks & Co	Waldoboro	Oct ..	Fine White Middlings	13.6
8277	Saginaw Milling Co	Orrington	Oct ..	White Middlings...	13.1
8437	So. Paris Grain Co.	South Paris.....	Oct ..	White Middlings...	21.5
8212	D. B. Gardner	West Pembroke..	Jan ..	Brown Middlings ..	18.9
8451	No. West. Consolidated Milling Co.	Eastport.....	Oct ..	Brown Middlings ..	17.4
8453	No. West. Consolidated Milling Co.	....	Oct ..	Brown Middlings ..	17.6
8214	L. H. Phelan	Calais.....	Jan ..	Brown Middlings ..	18.5
8204	Pillsbury's Mills...	Newport..... ...	Jan ..	Pillsbury's Middlings	16.9

ANALYSES OF BRANS, ETC.—Concluded.

Station number.	Manufacturer or Dealer.	Sampled at	Date of sampling.	Name of Feed.	Protein—per cent.
8218	F. W. Stock	Waldoboro	Jan	(M) Middlings	16.3
8228	F. W. Stock	Hiram	Jan	Coarse Middlings	15.6
8428	F. W. Stock	Wiscasset	Oct.	Middlings	15.4
8440	F. W. Stock	Canton	Oct.	Middlings	16.0
8225	Stott's Milling Co.	Foxcroft	Jan	Middlings	17.4
8226	Stott's Milling Co.	Dover	Jan	Middlings	17.2
8223	Valley City Milling Company	Guilford	Jan	Winter Wheat Middlings	16.6
8232	Washburn Crosby Company	Norway	Jan	Flour Middlings	17.4
8259	Washburn Crosby Company	Richmond	Jan	Standard Middlings	16.9
8240	Voigt Milling Co	Bethel	Jan	Choice Middlings	17.3
8245	Keeler Bros.	West Minot	Jan	Red Winter Middlings	17.4
8422	The Walsh De Roo Milling Co.	Waldoboro	Oct.	Middlings	17.2
8424	Wm. A. Coombs	Waldoboro	Oct.	Winter Wheat Middlings	15.6
8443	Austed & Burke	Milo	Oct.	Middlings	16.2
8458	Minkota Milling Co	Houlton	Oct.	Middlings "Athlete" Brand.	16.6
8221	Pillsbury's Mill	Damariscotta	Feb.	Pillsbury's XX Daisy Feed Flour.	19.5
8247	Pillsbury's Mill	Poland	Jan	Pillsbury's XX Daisy Feed Flour.	19.8
8257	Pillsbury's Mill	Richmond	Jan	Pillsbury's XX Daisy Feed Flour.	19.1
8215	Pillsbury's Mill	Calais	Jan	Pillsbury's XX Daisy Feed Flour.	19.2
8256	No. West. Consolidated Milling Co.	Richmond	Jan	XXX Comet	20.9

J. M. Bartlett, *Chemist.*

O. W. Knight, } *Assistant*
A. J. Patten, } *Chemists.*

SUMMARY OF ANALYSES OF BRANS, ETC.

	Number of analyses.		Protein—per cent.
Stott's Flour Mills			
Stott's Bran.	4	Highest	15.1
		Lowest	14.6
		Average	14.9
Pillsbury's Mills			
Pillsbury's Bran.	7	Highest	15.9
		Lowest	15.1
		Average	15.4
F. W. Stock's			
Bran.	5	Highest	15.4
		Lowest	14.8
		Average	15.1
Voigt Milling Company's			
Choice Bran.	5	Highest	16.6
		Lowest	13.9
		Average	15.5
E. S. Woodworth & Company's			
Snow's Flaky Bran.	4	Highest	16.3
		Lowest	15.6
		Average	15.9
Winter Wheat Brans			
All analyses.	9	Highest	15.7
		Lowest	13.6
		Average	14.6
All Brans not Marked Winter			
Wheat Brans.	42	Highest	17.9
		Lowest	13.9
		Average	15.6
Blish's Milling Company's			
Mixed Feed.	5	Highest	16.7
		Lowest	15.5
		Average	16.0
F. W. Stock			
Mixed Feed.	3	Highest	15.3
		Lowest	14.7
		Average	15.0
Acme Milling Company's			
Acme Feed.	5	Highest	16.8
		Lowest	15.6
		Average	16.4
R. P. Moore Milling Company's			
King Mixed Feed.	4	Highest	16.6
		Lowest	16.1
		Average	16.3
All Mixed Feeds			
Resembling Brans.	44	Highest	17.5
		Lowest	14.3
		Average	15.9
White Middlings.	6	Highest	21.5
		Lowest	12.4
		Average	15.5
Brown Middlings.	4	Highest	18.9
		Lowest	17.4
		Average	18.1
Middlings, all kinds.	26	Highest	21.5
		Lowest	12.4
		Average	16.6
Pillsbury's XX Daisy Feed Flour.	4	Highest	19.8
		Lowest	19.1
		Average	19.4

The refuse products in the milling of wheat are very important cattle foods. With the exception of Indian corn, whole and ground, there is probably no other class of foods used so largely in this State as food for dairy stock. All of the milling products of wheat are, under the law, exempt from inspection. In order that the character of these feeds might be investigated, the Station inspectors were directed in January and again in November, 1898, to take samples of all the distinct brands of brans, middlings, mixed feeds, and kindred substances they might find exposed for sale. About 150 samples were collected. As this class of feeds are, in addition to their mineral matters, of chief importance as a source of nitrogen, only the protein was determined in them. All suspicious samples were examined under the microscope, but in no instance was foreign matter found that indicated adulteration. In a few cases oat and barley hulls were observed but in no greater amount than sometimes occurs in wheat.

From the summary on page 7, it is seen that refuse products from the same mill run quite uniform. For the most part the brans were good. The range from 13.6 per cent of protein to 17.9 per cent is, however, a much larger one than is desirable. The "mixed feeds" nearly all appear to be good grade brans of fairly uniform composition.

The class of mill products that are particularly deceptive and which seem to be the "catch all" are the so-called middlings. From poorer in protein than the poorest brans, they are in some instances better than the high grade feed flours. Some of these are apparently mixed with nearly worthless refuse materials while others are strictly high grade goods. No one can afford to buy this class of goods unless their quality is guaranteed. Middlings that carry 18 to 20 per cent of protein are very desirable as a feed, but those that carry only 12 or 13 are little better than oat hulls. Unfortunately there seems to be no relation between the price asked and the true feeding value. The dealers in these goods profess to know nothing of their composition. The protection alike of dealers and consumers seems to demand that this class of feeds be placed under the requirements of the feeding stuff law.

CHAS. D. WOODS, *Director.*